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Information

Generic Screening

A Systems Approach to Patient Care Audit Studies

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RECENTLY, students of the audit process have questioned the value of continuing audit programs in their traditional format and have suggested exploring new directions and expansion of the scope for this process. Reports have substantiated that audits using the time-tested diagnosis and procedure methods of topic selection have not produced high yields of potential problems for analysis. Moreover, there seems to have been a lessening of professional satisfaction and educational value to be derived from the diagnosis and procedure oriented audits.

A new approach to patient care audits came about as an unexpected outcome of a study—the Medical Insurance Feasibility Study (MIFS)—jointly sponsored by The California Medical Association and The California Hospital Association. The study, designed and conducted by Don Harper Mills, MD, JD, Los Angeles; John S. Boyden, Jr., MD, LLB, Salt Lake City, and David S. Rubsamen, MD, LLB, Berkeley, was published in 1977.[1] It sought to identify potentially compensible events occurring in hospitals. An important by-product of this approach has been a new method of detecting patient care problems suitable for study by patient care audits. The name that has been given to this is *generic screening.*

A generic screen is a patient condition or a patient care event that might signal one or more problems in the health care system. For example, serious injuries are not expected to happen to patients in hospital. Should such an event occur it can be studied with the objective of preventing recurrence in the future. Generic screens provide new topics for audits, but most important they shift emphasis from merely assessing the care provided by health professionals to evaluating the entire system of care in an institution. After supervising and conducting many audits, one of our collaborators concluded that

> Gaps in patient care between what is desired and what actually occurs can only be identified in 15 percent of the audits performed in the traditional manner by looking at the performance of health care professionals in isolation. Eighty-five percent of these gaps can indeed be surfaced by an approach involving the "system" of patient care delivery. This "systems" evaluation technique calls for the inclusion of such factors as risk management events, exceptional patient care occurrences, scheduling deficiencies, policies, clinical data printouts, discharging planning, etc. *The addition of the generic-screening-generated audits which focus on problems in patient care would attain an almost 100 percent record in achieving "desired" care* (personal communication from Stanley A. Skillicorn, MD).

Examples of exceptional patient care occurrences that could lead to the development of generic screens are the following: patient sensitivity reactions to drugs, infections incurred in a hospital, more than one operating-room visit during a single hospital admission, unplanned repair of an organ during an operative procedure, neurologic deficit not present at admission, a patient who is febrile on discharge, or unplanned readmission for complications developing from a previous hospital admission.

The generic screening procedure begins with the selection of a potential problem or a generic criterion. This might be hospital-incurred trauma, for example. A screening level is then set, which in this instance might be 0 percent, that would require a review of all cases of patients incurring such an injury over a specified period of time. Instructions to the medical records department might stipulate exceptions, such as eliminating review of records in cases resolved before discharge or not requiring extended length of stay. Instructions for this generic screening criterion might be stated in this way:

- *Criterion*—hospital-incurred trauma,
- *Screening Level*—0 percent,
- *Exceptions*—problems resolved before discharge without increase in length of stay.

The medical records department would then be

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instructed to retrieve and review charts for patients who had had inhospital fractures, burns, lacerations requiring sutures, damage to teeth or other disabilities. Such minor problems as phlebitis or hematoma caused by infiltrated intravenous infusions and falls resulting only in bruises or simple lacerations not requiring sutures can be omitted. With this method, records to be reviewed will represent major injuries, problems needing attention.

Sources of generic screens may be any of the following: incident reports, infection control departments, medical care evaluation committees, medical record committees, utilization review, in-service training and education programs, clinical data printouts, health care provider complaints, patient dissatisfactions, hospital administrative issues, product review committees, liability claims, coronary care and resuscitation committees, safety committees, pharmacy committees and even social service department reports.

Following are three case studies to illustrate how generic screening criteria and subsequent audits can focus on problems and their causes. Each case study proceeds from a clinical suspicion to application of generic screening criteria to development of generic audit objectives. From that point, options include the development of generic criteria or suggestions for further generic audit studies.

Case Studies

CASE 1. The resident physician assigned to hospital admissions reported to the chief of staff that certain patients were being repeatedly admitted about every three to four months. This *revolving-door* syndrome is disturbing to both house staff and attending staff and exacerbates an increasingly tight bed situation. The audit committee was instructed to screen the problem.

The generic screen selected was frequent readmissions for the same diagnosis. Sources of information were the medical records department, clinical data printouts and utilization review committee reports.

In this example, 64 cases were discovered that required one or more readmissions during two years. These fell into three diagnostic categories: (1) acute pancreatitis or relapsing pancreatitis with associated conditions of chronic alcoholism or biliary calculi, (2) adult onset diabetes (insulin dependent) and (3) attempted suicide. A potential audit topic was chosen, which was the same as the generic screen—repeated hospital admission for the same diagnosis. The objectives of the audit were established: to evaluate causes of the revolving-door syndrome and to reduce its incidence. The suggested criterion used in the chart search was the presence or absence of notation regarding remedial programs to reverse causative factors.

CASE 2. The surgical review committee is reviewing the use of surgical suture material in view of technological and product improvements and reports of increased incidence of wound disruption requiring return to surgery. Before deciding on changes in suture materials or wound closure protocols, an extensive review of the surgical department's experience was recommended.

The generic screen selected was abdominal wound dehiscence. Sources of information were surgical logs and complication reports. In this example 15 such events were discovered during a two-year period in the departments of general surgery and gynecology.

Potential audit studies selected were the use of nonabsorbable sutures in clean-wound closure, delayed closure of wound in infected cases, use of drains in cases of potential infection and review of all types of wound closure in abdominal operations.

CASE 3. The pathology department reported to the chief of pediatrics that the percentage of high bilirubin levels in newborn babies exceeds the established standard of 10 percent of the nursery population. Whether these high levels were due to prematurity, physiologic causes or incompatibility was not an immediate concern. What concerned the department was the requirement that physicians borrow equipment from other hospitals in order to administer phototherapy.

The generic screen was unexplained hyperbilirubinemia in the newborn nursery. Sources of information were clinical data printouts, pathology laboratory reports and pediatric department standards for normal incidence of newborn jaundice. (In this example, a two-year study showed that 50 percent of babies in the newborn nursery had hyperbilirubinemia.)

Potential audit studies dealt with the influence of environmental factors in the hospital nursery (cleansing chemicals, for example) in causing hyperbilirubinemia in newborn babies and the

impact of prophylactic use of vitamin K for prevention of hyperbilirubinemia in newborns.

The completed audit showed that the prophylactic use of vitamin K had no impact on prevention of hyperbilirubinemia, but found that improvement was due to changing cleansing chemicals used in the nursery.

The benefit of generic screens is that they are nonspecific and may be applied to all patient records so that potential problems can be recognized and subjected to in-depth analysis using conventional audit techniques. Generic screens are objective rather than subjective and therefore they are not completely dependent upon documentation by a physician or nurse. They may be applied retrospectively, concurrently or prospectively, and they have the advantage of meeting demands for increased quality assurance activity without increasing the time demands upon physicians. Generic screens are readily adaptable to continual analysis by either manual or computer methods.

Summary

Generic screening is an effective way to monitor exceptional events for the purpose of identifying potential patient care problems upon which to focus audit studies. One of the objectives of the generic screening concept in the audit process is to isolate for an audit committee the problem areas in the delivery of patient care. The audit procedure is a performance evaluation system, not a *research* mechanism where absolute certainty is essential. All that is necessary for valid generic screening is probability, not certainty.

It is gratifying to note that many nationally prominent leaders in patient care evaluation have incorporated generic screening in their evaluation, risk management and patient protection programs.

REFERENCE

1. Mills DH (Ed): Report on the Medical Insurance Feasibility Study—Sponsored jointly by the California Medical Association and the California Hospital Association, 1977. San Francisco. Sutter Publications, Inc, 1977

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Tamoxifen in the Management of Metastatic Cancer of the Breast

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TAMOXIFEN is a synthetic triphenylethylene derivative that exhibits potent antiestrogenic activity in several mammalian species.[1] It acts by inhibiting the binding of estradiol to a cytoplasmic receptor complex from normal endometrium and in adenocarcinoma of the breast and uterus.[2,3] The drug has undergone clinical studies in the United States after earlier trials in Europe and Great Britain[4,6] had shown an objective tumor regression in 25 percent to 40 percent of patients with metastatic breast cancer. This report will present the results of a clinical study using tamoxifen in 30 patients with stage IV breast carcinoma which was conducted at the Eisenhower Medical Center, Rancho Mirage, California, during the past two years. Since two patients are still receiving the drug, this communication is to some degree still preliminary.

Methods

After informed consent was obtained, women with advanced cancer of the breast and disease that could be evaluated were selected to receive tamoxifen. All were expected to survive at least six months so that a failure with the drug would not jeopardize the success of further hormonal manipulation. While the majority of women had lesions involving multiple sites, dominant areas of disease could nonetheless be identified. As is traditional, the cases were assigned to soft tissue, osseous and visceral dominant disease categories. All patients were postmenopausal either as a result of surgical ablation or by natural occurrence. Their ages ranged from 35 to 85 years,

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